United States Environmental Protection Agency
EPA New England
One Congress Street, Suite 1100
Boston, MA 02114-2023

November 12, 2003

To: B. Olson, EPA
J. Kilborn, EPA
H. Inglis, EPA
R. Howell, EPA
D. Moore, USACE
K.C. Mitkevicius, USACE
S. Steenstrup, MA DEP (2 copies)
S. Peterson, CT DEP
A. Silfer, GE
J. Novotny, GE
J.R. Bieke, Esquire, Shea & Gardner
S. Messur, BBL
D. Young, MA EOEA
R. Cataldo, ENSR
R. Nasman, The Berkshire Gas Company
Mayor Hathaway, City of Pittsfield
Commissioner of Public Works and Utilities, City of Pittsfield
Public Information Repositories

RE: October 2003 Monthly Report
1.5 Mile Reach Removal Action
GE-Pittsfield/Housatonic River Site

Enclosed please find the October 2003 Monthly Report for the 1.5 Mile Reach Removal Action. In accordance with the Consent Decree for the GE-Pittsfield/Housatonic River Site, the United States Environmental Protection Agency (EPA) is performing the 1.5 Mile Reach Removal Action, with General Electric funding a portion of the project through a cost sharing formula.

The EPA has entered into an agreement with the United States Army Corps of Engineers (USACE) to assist in the design and construction of the Removal Action. The USACE subsequently awarded a design-construct contract to Weston Solutions, Inc. (Weston). Weston, with several subcontractors, will be performing the design and construction activities for the 1.5 Mile Reach Removal Action.

If you have any questions, please contact me at (413) 236-0969.
Sincerely,

Dean Tagliaferro
1.5 Mile Reach Removal Action Project Manager

1. Overview

During October 2003, the Environmental Protection Agency (EPA), the United States Army Corps of Engineers (USACE), the USACE's contractor, Weston Solutions, Inc., and Weston's subcontractors continued remediation activities on the 1.5 Mile Reach Removal Action. The primary work included soil and sediment excavation and backfilling activities in Cells 13E and 13W. The installation of the Cell 13 west riverbank retaining wall and the installation of the cellular geoweb on the east riverbank were completed. In addition, transfer of TSCA and non-TSCA materials from the stockpile management areas to the GE On Plant Consolidation Areas (OPCAs) was also performed.

2. Chronological description of tasks performed

Refer to Figure 1 for an orientation of the sheetpile cells and their respective locations.

By the end of September 2003, the non-TSCA excavation activities in Cell 13E were underway, however due to heavy rainfall during the last days of September, the temporary dam was overtopped, the stop logs removed and the entire Cell 13 was flooded. Once the river water levels started to drop down, the stop logs were re-installed and the dewatering of Cell 13 was initiated. During the first week October, the dewatering of Cell 13 continued. The river water directly downstream of the dam in already remediated areas was pumped back over the dam and the water in areas within Cell 13 was dewatered down to a six-inch depth and rerouted downstream of the Elm Street Bridge. Once the water depth reached six inches, the water was pumped to the water treatment system.

Upon completion of the dewatering, the non-TSCA excavation activities continued in Cell 13E. The non-TSCA material was then transported to the Building 65 stockpile management area. During the excavation of Cell 13E, NAPL-impacted sediment was encountered. The NAPL-impacted sediment was removed and transported to the designated stockpile management area in Building 68. (See Table 1 for a daily summary of material transported to the stockpile management areas in the month of October) Most of the NAPL impacted material was successfully removed from the riverbed. The excavation extended down to approximately 14 feet below the original river bottom elevation. Beneath the Elm Street Bridge, the NAPL-impacted material extended below the east bank bridge footing. Further excavation could have potentially undermined this bridge footing. Therefore the excavation activities were terminated and concrete mixture was poured into the excavation area by the bridge abutment to contain the residual NAPL. The excavated riverbanks were covered daily with poly sheeting to prevent erosion.

A temporary earthen bin block dam was constructed immediately downstream of the Elm Street Bridge to prevent river water backing up into the Cell 13E excavation zone.

Other activities during the first week of October included reconstructing of the timber mat temporary ramp over the 54-inch pipe to allow access to Cell 13E from the west side of the river. Also, large riprap was placed in the riverbed on the downstream side of the temporary dam to prevent scouring when the stop logs are removed or the dam overtops.

During the second week of October the non-TSCA and NAPL excavation activities were completed in Cell 13E. No residual NAPL-impacted material (except for the material below the bridge footings) was observed following the completion of the NAPL excavation. Also, the necessary TSCA excavation was completed in Cell 13E. The TSCA material was transported to Building 63, the non-TSCA material to the Building 65 and the NAPL-impacted material to Building 68 stockpile management areas. The survey subcontractor completed verification survey of the Cell 13E excavation areas and staked out backfill grades in Cell 13E.

Upon completion of excavation in Cell 13E, removal of the flat sheetpile centerline separating Cells 13E and 13W was completed. The removed sheetpile was moved to the decontamination pad on the staging area adjacent to Building 68 stockpile management area and decontamination activities were initiated.

Once the backfilling grades were stakes out backfilling activities were initiated. Prior to backfilling activities in Cell 13E a separation wall composed of bin blocks and poly sheeting was constructed along the centerline under the Elm Street Bridge to separate the excavated zone in Cell 13E from the NAPL-impacted sediment zone under the Elm Street Bridge in 13W which was not excavated in September during excavation activities of Cell 13W due to concerns associated with Hurricane Isabel undermining the footings of the Elm Street Bridge.

The areas of the Cell 13E riverbed where the sumps and swales were located were backfilled with two-inch stone to facilitate drainage of groundwater within the cell and allow for the proper installation of Common Fill. In areas of the riverbed where the NAPL excavation extended beyond the design limit of remediation 12-inch riprap was placed at the base of the excavation to bring the sub-grade to the design remediation elevation and to facilitate drainage. Next, the entire Cell 13E riverbed was backfilled with a six-inch layer of Common Fill and a six-inch layer of Filter Stone was installed over the Common Fill and compacted as necessary. The riverbed in Cell 13 required three different types of riprap to be installed. A fifteen-inch layer of 9-inch riprap was installed in the first fifty feet of the cell, a twenty-inch layer of 12-inch riprap was installed in the next seventy feet of the cell and the remaining two hundred and sixty feet of the cell were backfilled with a twenty four-inch layer of 18-inch riprap.

The first three hundred feet of the riverbank in Cell 13E was backfilled up to elevation 976 with a six-inch layer of Common Fill Filter Grade, a six-inch layer of Filter Stone, and a twenty-four inch layer of 18-inch riprap. The last eighty feet of the riverbank, adjacent to the Elm Street Bridge, was backfilled up to elevation 980 with riprap to ensure additional riverbank stability next to the bridge.

Other activities during the second week in October included installation of H-piles on the east and west riverbank downstream of Elm Street Bridge for the restraint system of the 54-inch pipe. Work associated with installation of the underground electrical line to the temporary dam was

initiated. Also, herbicide spraying of the invasive species in the recently restored riverbanks was completed.

During the third week of October the riverbank and riverbed backfilling activities in Cell 13E continued. The riverbank above elevation 976 in the first three hundred feet of the cell and riverbank above elevation 980 in the last eighty feet of the cell were backfilled with Common Fill and properly compacted. The Survey Subcontractor completed the backfill verification survey of Cell 13E. The riverbank was covered with poly sheeting pending the installation of cellular geoweb and topsoil.

The Cell 13 west riverbank retaining wall construction was initiated. The installation of the H-piles and the welding of walers onto the H-piles was completed.

The installation of H-piles was completed on the east riverbank in Cell 13 for the restraint system of the 54-inch pipe. Four-inch valves were installed on the top of both of the 54-inch pipes downstream of the Elm Street Bridge. The 54-inch pipes were relocated to the east side of as follows: The temporary dam stop logs were removed and Cell 13 was flooded. Both slide gates were then closed and the river water stopped flowing through both of the pipes. The pipes were dewatered by pumping the water out through the 4-inch valves. Next, the pipes were moved to the east side of the river and attached to the restraint system. The gates on the pipes were opened to allow the river water through them, the stop logs were installed on the dam and dewatering process of Cell 13 was initiated. Collars were installed around the pipes tying the two pipes to one another. H-piles were also installed between the pipe to reinforce and secure the locations in which the collars have been tied onto the pipe.

Also during the third week in October, work associated with installation of the underground electrical line from the water treatment system area to the temporary dam was completed. Excess material generated during excavation of the utility trench was transported to Building 65 stockpile management area. Also, repairs were performed on the energy dissipater immediately downstream of the Elm Street Bridge by pouring concrete into the cracks of the structure. Eighteen-inch riprap was placed on the downstream end of the temporary earthen bin block dam immediately downstream of the Elm Street Bridge to prevent downstream erosion during a possible flooding of Cell 13. The construction of a temporary access ramp into Cell 13W for future backfill activities was initiated. The trash racks upstream of the temporary dam were cleaned and the debris was transported to the Building 65 stockpile management area.

During the fourth week of October, the dewatering process of Cell 13 was completed. The survey contractor staked out excavation limits for in Cell 13W under the Elm Street Bridge. Excavation activities were completed of both the remaining non-TSCA material and the encountered NAPL-impacted material. The excavation extended down to approximately 14 feet below the original river bottom elevation. Beneath the Elm Street Bridge, the NAPL-impacted material extended below the west bank bridge footing. Further excavation could have potentially undermined this bridge footing. Therefore the excavation activities were terminated and a small amount of residual NAPL material remained beneath the bridge footings. (See Table 2 for final excavation quantities in Cell 13) The non-TSCA material was then transported to Building 65 and the NAPL material to the Building 68 stockpile management areas. The survey

subcontractor completed verification survey of the excavation areas and staked out Cell 13W backfill grades.

The access ramp construction into Cell 13W was completed. Upon completion of the temporary ramp, backfilling activities were initiated. The areas of the Cell 13W riverbed where the sumps and swales were located were backfilled with two-inch stone to facilitate drainage of groundwater within the cell and allow for the proper installation of Common Fill. In areas of the riverbed where the NAPL excavation extended beyond the design limit of remediation, 9-inch riprap and Filter Stone was placed at the base of the excavation to bring the sub-grade to the design remediation elevation and to facilitate drainage. Next, the entire Cell 13W riverbed was backfilled with a six-inch layer of Common Fill and a six-inch layer of Filter Stone was installed over the Common Fill and compacted as necessary. The riverbed in Cell 13 required three different types of riprap to be installed. A fifteen-inch layer of 9-inch riprap was installed in the first fifty feet of the cell, a twenty-inch layer of 12-inch riprap was installed in the next seventy feet of the cell and the remaining two hundred and sixty feet of the cell was backfilled with a twenty four-inch layer of 18-inch riprap.

The Cell 13 west riverbank retaining wall construction continued. The installation of the sheetpiling along the face of the installed walers was initiated. Each sheetpile was then welded to the walers. Two-inch diameter weep holes were installed every 10 feet in the permanent sheetpile retaining wall and a geotextile wrapped 2-inch stone drain system was installed behind the wall on the riverbank side of the wall to facilitate drainage of groundwater from behind the wall. The portion of the riverbank behind the permanent sheetpile retaining wall was then backfilled with six inches minimum of Common Fill Filter Grade, six inches of Filter Stone, and twenty-four inches of 18-inch riprap up to elevation 975 in the first hundred and twenty feet of the cell and up to elevation 976 in the last two hundred and sixty feet. The riverbanks were covered daily with poly sheeting to prevent erosion.

During the last week of October, the construction of the west riverbank retaining wall was completed. The riverbank backfilling activities continued in Cell 13W. With heavy rain expected, construction hours were extended to complete the riverbed and riverbank restoration up to elevation 975. The riverbank above elevation 975 was covered with poly sheeting. Heavy rain on October 27 and October 29, 2003 caused high river flows. Stop logs were removed and the dam was opened up, subsequently flooding the entire Cell 13. The river flow remained below elevation 975 in Cell 13 therefore no erosion occurred.

In areas of the east riverbank above the riprap in Cell 13 where the proposed final slope was steeper than 2V:1H cellular geoweb was installed. The cellular geoweb was secured into the riverbank with rebar, one stake per 3 square feet. Since Cell 13 was flooded topsoil was not placed at this time.

Miscellaneous site clean up and equipment maintenance activities were performed during the last four days of October. Decontamination of the flat sheetpiles from the Cell 13 separation wall continued. Once the river water level started to drop down, the stop logs were installed and the dewatering of Cell 13 was initiated.

During the month of October, the water treatment system treated water from Cells 13W and 13E. Sampling of the water treatment system for parameters included in the NPDES exclusion permit was performed on October 08, 2003. Due to the presence of NAPL in Cell 13E and 13W, the analytical parameters for the water treatment system sampling continued to include volatiles, semi-volatiles and Total Petroleum Hydrocarbons. Air monitoring for particulate matter (PM10 sampling) and surface water turbidity monitoring was performed on a daily basis. The monthly PCB air-monitoring event was performed on October 03, 2003. Surface water sampling for total suspended solids (TSS) and PCBs was performed on October 01 and October 16, 2003. Sampling of Topsoil for chemical parameters was performed on October 13, 2003. PCB wipe samples were collected on the decontaminated sheetpile at a frequency of one sample for every ten sheets. Also, PCB wipe samples were collected on decontaminated equipment. Two NAPL impacted sediment samples were collected from Cell 13E on October 02, 2003. One samples was analyzed for PCBs, volatiles, semi-volatiles and Total Petroleum Hydrocarbons and the second sample was analyzed for PCBs only. Six eight-point composite disposal characterization samples were collected from the Cell 13 NAPL-impacted sediment stockpile in Building 68 on October 23, 2003.

Geotechnical samples were collected for Topsoil and Filter Stone. Visual inspections were completed on the 18-inch riprap. The results of the geotechnical testing and the visual inspections are not included in the monthly reports but are contained in other submittals and are available upon request.

For the month of October a total of sixteen and a half truckloads (181cy) of non-TSCA material was generated during the installation of the electrical utility line to the temporary dam, cleanup of temporary dam trash rack and minor clean up activities of the support areas.

The transfer of non-TSCA materials from the Building 65 stockpile management area and from Lyman Street Parking lot Stockpile area to the Hill 78 OPCA was performed from October 28 to October 30, 2003. The transfer of TSCA materials from the Building 63 stockpile management area to the Building 71 OPCA was performed on October 30, 2003. Paint filter tests were collected at a frequency of 1 per 100 cubic yards (cy) of material loaded (see Table 3 for a summary of material transported to the OPCAs in October 2003 and Table 4 for a summary of material transported to the OPCAs for the project through October 2003).

The vibration monitoring activities were initiated on parcel I8-24-1. Two monitoring units were set up, one to monitor the Elm Street Bridge and the other one to monitor Harry's Supermarket parking lot. (See Figure 1 for the locations of the Vibration Monitors).

Traffic control was conducted on Lyman Street throughout the month of October.

Dust control procedures continued for access roads, parking areas, and material storage areas. In addition, staged backfill materials were covered to prevent the generation of dust.

Stockpile management area activities continued throughout the month of October. Daily inspections, operation and maintenance activities were performed within Buildings 63, 65 and 68. Repairs to the access ramp to Building 65 were completed. Also, the collection of

accumulated water that drained from the stockpiles and transportation of that water to the on-site water treatment system was completed.

3. Sampling/test results received

PCB sample results for the water treatment system sampling program were received for samples collected on October 08, 2003 (Table 5). Non-PCB sample results were received for samples collected on October 08, 2003 (Table 5a). Analytical results for backfill materials are summarized in Table 6. This includes the sampling results for Common Fill samples collected on September 30, 2003; results for topsoil samples collected on October 13, 2003 are not yet available. The results of the daily particulate air monitoring program are summarized in Table 7. Table 8 is a summary of daily turbidity monitoring results. Results for PCB and TSS samples and water column monitoring data collected on September 18, 2003 and October 01, 2003 are presented in Table 9. PCB and TSS results for water monitoring samples collected on October 16, 2003 are not yet available. A summary of samples collected for the air sampling on September 30, 2003 and October 03, 2003 are provided in Table 10. Table 11 contains PCB data associated with the decontaminated equipment and sheetpile confirmatory wipe samples. Table 12 presents the analytical data associated with the Cell 13E NAPL-impacted sediment samples collected on October 02, 2003. The results for the eight-point composite disposal characterization samples collected from the Cell 13 NAPL-impacted sediment stockpile in Building 68 on October 23, 2003 are not yet available.

4. Diagrams associated with the tasks performed

Figure 1 is a map of Phase I and the beginning of Phase II and includes layout of all excavation cells, temporary dam, lot parcel identification numbers, water monitoring locations, PCB air sampling locations, vibration monitoring locations, access road locations, fence line location, the water treatment system pad location, the effluent discharge location, and the utility trench location.

5. Reports received and prepared

Weston received a vibration monitoring summary report for the period of October 13, 2003 to November 3, 2003 from Vibra-Tech, Inc. During this period, two seismographs were set up on Parcel I8-24-1, approximately 100 feet apart from one to another. One unit was set up to monitor the Elm Street Bridge and the other unit was set up to monitor the Harry's Supermarket building. Both units were set up to collect data on the continuous seismic mode. Activities

occurring near the two monitoring locations during this period included normal background activities, sheet pile driving for the west riverbank retaining wall, and general construction activities. The maximum ground vibration level measured was 0.63 inches per second (ips), which was a single time occurrence. The next highest reading was 0.24 ips. The maximum vibration level (0.63ips) encountered during the month represents 31.5% of the state's recommended limit of 2.0 ips. All readings during this period comply with State Regulations.

6. Photo documentation of activities performed

See attached photos.

7. Brief description of work to be performed in November 2003

- Complete backfill activities in Cell 13W.
- Complete the installation of cellular Geoweb on the Cell 13 West riverbank.
- Complete the installation of topsoil, herbaceous seed mix and biodegradable erosion control blankets on Cell 13 East and West riverbanks.
- Complete transport of NAPL-impacted materials and the water treatment system modutank sediment to approved off-site disposal facilities.
- Continue stockpile management activities at Buildings 63 and 68.
- Initiate fencing and tree clearing activities in the first 600-foot stretch of the riverbanks right downstream of Elm Street Bridge.
- Continue utility relocation activities on the riverbanks from Elm Street Bridge to Dawes Avenue Bridge.
- Continue daily air and turbidity monitoring.
- Continue PCB air sampling (once a month), water column sampling (twice a month), and backfill material sampling (as needed).
- Continue Vibration monitoring activities of the Elm Street Bridge and the Harry's Supermarket parking lot during the installation of backfill in Cell 13W.

8. Attachments to this report

Table 1. Quantity of Bank and Sediment Material Generated During the Month of October

Table 2. Quantity of Bank and Sediment Material Excavated to Date

Table 3. Quantity of Material Transferred to OPCAs During the Month of October

Table 4. Quantity of Material Transferred to OPCAs to Date

Table 5. NPDES PCB Sampling Results for Water Treatment System

Table 5a. NPDES non-PCB Sampling Results for Water Treatment System

Table 6. Backfill Material Testing Results

Table 7. Daily Air Monitoring Results

Table 8. Daily Water Column Turbidity Monitoring Results

Table 9. Summary of Turbidity, PCB, and TSS Water Column Monitoring Results

Table 10. PCB Air Sampling Results

Table 11. Equipment and Sheetpile Confirmatory Wipe Sample Results

Table 12. NAPL- Impacted Sediment from Cell 13 Analytical Results

Figure 1- Phase I Site Plan

Photodocumentation